This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1   1. (currently amended) A method, comprising:
2   designating a first portion of a virtual memory space as an unreserved portion
3   which is conditionally accessible by a class of memory users which includes at least one
4   memory user wherein said unreserved portion is mapped to physical memory space;
5   designating a second portion of said virtual memory space as a reserved portion
6   which is conditionally unavailable for use by any memory user of said class of memory
7   users <u>wherein none of said reserved portion is mapped to physical memory space</u>; and
8   converting a subportion of one of said unreserved portion and said reserved
9   portion to a subportion of the other of said unreserved portion and said reserved portion.

1   2. (original) The method of claim 1 further comprising allocating a buffer
2   subportion of the unreserved portion of said virtual memory space for use as a buffer
3   memory by a memory user of said class of memory users.

1   3. (original) The method of claim 2 wherein said allocating includes changing a
2   bit of a bitmap representing said unreserved portion to indicate that said buffer subportion
3   is allocated to a memory user.

1   4. (original) The method of claim 3 further comprising subsequently
2   unallocating said buffer subportion so that said buffer subportion is available to be
3   allocated to a user of said class of memory users.

1   5. (original) The method of claim 4 wherein said unallocating includes changing
2   a bit of a bitmap representing said unreserved portion to indicate that said buffer
3   subportion is available to be allocated to a user of said class of memory users.

1   6. (original) The method of claim 1 wherein said converting includes converting

2   a subportion of said unreserved portion to a subportion of said reserved portion.

1   7. (original) The method of claim 1 wherein said converting includes converting

2   a subportion of said reserved portion to a subportion of said unreserved portion.

1   8. (original) The method of claim 1 wherein said reserved and unreserved

2   portions are contiguous in said virtual memory space and the boundary between said

3   reserved and unreserved portions is represented by a virtual memory address and wherein

4   said converting includes changing the virtual memory address of the boundary.

1   9. (original) The method of claim 1 wherein said class of memory users are users

2   of a send and receive agent.

1   10. (original) The method of claim 1 wherein said physical memory is a part of a

2   host memory.

1   11. (cancelled)

1 12. (currently amended) An article comprising a storage medium, the storage

2 medium comprising machine readable instructions stored thereon to:

3   designate a first portion of a virtual memory space as an unreserved

4 portion which is conditionally accessible by a class of memory users which includes at

5 least one memory user wherein said unreserved portion is mapped to physical memory

6 space;

7   designate a second portion of said virtual memory space as a reserved

8 portion which is conditionally unavailable for use by any memory user of said class of

9 memory users wherein none of said reserved portion is mapped to physical memory

10 space; and

11   convert a subportion of one of said unreserved portion and said reserved

12 portion to a subportion of the other of said unreserved portion and said reserved portion.

1 13. (original) The article of claim 12 wherein the storage medium further

2 comprises machine readable instructions stored thereon to allocate a buffer subportion of

3 the unreserved portion of said virtual memory space for use as a buffer memory by a

4 memory user of said class of memory users.

1 14. (original) The article of claim 13 wherein the machine readable instructions

2 to allocate include machine readable instructions stored on the storage medium to change

3 a bit of a bitmap representing said unreserved portion to indicate that said buffer

4 subportion is allocated to a memory user.

1 15. (original) The article of claim 14 wherein the storage medium further

2 comprises machine readable instructions stored thereon to subsequently unallocate said

3 buffer subportion so that said buffer subportion is available to be allocated to a user of

4 said class of memory users.

1   16. (original) The article of claim 15 wherein the machine readable instructions
2   to unallocate include machine readable instructions stored on the storage medium to
3   change a bit of a bitmap representing said unreserved portion to indicate that said buffer
4   subportion is available to be allocated to a user of said class of memory users.

1   17. (original) The article of claim 12 wherein the machine readable instructions
2   to convert include machine readable instructions stored on the storage medium to convert
3   a subportion of said unreserved portion to a subportion of said reserved portion.

1   18. (original) The article of claim 12 wherein the machine readable instructions
2   to convert include machine readable instructions stored on the storage medium to convert
3   a subportion of said reserved portion to a subportion of said unreserved portion.

1   19. (original) The article of claim 12 wherein said reserved and unreserved
2   portions are contiguous in said virtual memory space and the boundary between said
3   reserved and unreserved portions is represented by a virtual memory address and wherein
4   the machine readable instructions to convert include machine readable instructions stored
5   on the storage medium to change the virtual memory address of the boundary.

1   20. (original) The article of claim 12 wherein said class of memory users are
2   users of a send and receive agent.

1   21. (original) The article of claim 12 wherein said physical memory is a part of a
2   host memory.

1   22. (cancelled)

1   23. (currently amended) A system, comprising:

2   a virtual memory space comprising a plurality of memory addresses;

3   a physical memory which includes data storage, said physical memory

4   having a physical memory space comprising a plurality of physical memory addresses;

5   a processor coupled to the physical memory;

6   a network controller which includes a class of physical memory users

7   which includes at least one physical memory user;

8   a data storage controller for managing Input/Output (I/O) access to the

9   data storage; and

10   a device driver executable by the processor in the memory, wherein at

11   least one of the device driver and the network controller is adapted to:

12   (i) designate a first portion of a virtual memory space as an

13   unreserved portion which is conditionally accessible by said class of memory

14   users wherein said unreserved portion is mapped to said physical memory space;

15   (ii) designate a second portion of said virtual memory space as a

16   reserved portion which is conditionally unavailable for use by any memory user

17   of said class of memory users wherein none of said reserved portion is mapped to

18   physical memory space; and

19   (iii) convert a subportion of one of said unreserved portion and

20   said reserved portion to a subportion of the other of said unreserved portion and said

21   reserved portion.

1   24. (original) The system of claim 23 wherein at least one of the device driver

2   and the network controller is further adapted to allocate a buffer subportion of the

3   unreserved portion of said virtual memory space for use as a buffer memory by a

4   memory user of said class of memory users.

1   25. (original) The system of claim 24 further comprising a bitmap having a

2   plurality of bits representing said unreserved portion and wherein said allocating includes

3   changing a bit of said bitmap representing said unreserved portion to indicate that said

4   buffer subportion is allocated to a memory user.

1   26. (original) The system of claim 25 wherein at least one of the device driver

2   and the network controller is further adapted to subsequently unallocate said buffer

3   subportion so that said buffer subportion is available to be allocated to a user of said class

4   of memory users.

1   27. (original) The system of claim 26 wherein said unallocating includes

2   changing a bit of a bitmap representing said unreserved portion to indicate that said

3   buffer subportion is available to be allocated to a user of said class of memory users.

1   28. (original) The system of claim 23 wherein said converting includes

2   converting a subportion of said unreserved portion to a subportion of said reserved

3   portion.

1   29. (original) The system of claim 23 wherein said converting includes

2   converting a subportion of said reserved portion to a subportion of said unreserved

3   portion.

1   30. (original) The system of claim 23 wherein said reserved and unreserved

2   portions are contiguous in said virtual memory space and the boundary between said

3   reserved and unreserved portions is represented by a virtual memory address and wherein

4   said converting includes changing the virtual memory address of the boundary.

1   31. (original) The system of claim 23 wherein at least one of the device driver

2   and the network controller includes a send and receive agent which includes said class of

3   memory users.

1   32. (original) The system of claim 23 further comprising a host memory and said

2   physical memory is a part of a host memory.

1   33. (cancelled)

1   34. (original) The system of claim 23 for use with an unshielded twisted pair

2 cable, said system further comprising an Ethernet data transceiver coupled to said

3 network controller and said cable and adapted to transmit and receive data over said

4 cable.

1   35. (original) The system of claim 23 further comprising a video controller

2 coupled to said processor.

1   36. (currently amended)   A network adapter for use with a system which

2 includes a virtual memory space comprising a plurality of memory addresses, a physical

3 memory which includes data storage, said physical memory having a physical memory

4 space comprising a plurality of physical memory addresses; the adapter comprising:

5   a class of physical memory users which includes at least one physical

6 memory user;

7   wherein the network adapter is adapted to:

8   (i) designate a first portion of said virtual memory space as an

9   unreserved portion which is conditionally accessible by said class of memory

10   users wherein said unreserved portion is mapped to said physical memory space;

11   (ii) designate a second portion of said virtual memory space as a

12   reserved portion which is conditionally unavailable for use by any memory user

13   of said class of memory users wherein none of said reserved portion is mapped to

14   physical memory space; and

15   (iii) convert a subportion of one of said unreserved portion and

16 said reserved portion to a subportion of the other of said unreserved portion and said

17 reserved portion.

1   37. (original) The adapter of claim 36 wherein the network adapter is further

2   adapted to allocate a buffer subportion of the unreserved portion of said virtual memory

3   space for use as a buffer memory by a memory user of said class of memory users.

1   38. (original) The adapter of claim 37 further comprising a bitmap having a

2   plurality of bits representing said unreserved portion and wherein said allocating includes

3   changing a bit of said bitmap representing said unreserved portion to indicate that said

4   buffer subportion is allocated to a memory use.

1   39. (original) The adapter of claim 38 wherein the network adapter is further

2   adapted to subsequently unallocate said buffer subportion so that said buffer subportion

3   is available to be allocated to a user of said class of memory users.

1   40. (original) The adapter of claim 36 wherein said reserved and unreserved

2   portions are contiguous in said virtual memory space and the boundary between said

3   reserved and unreserved portions is represented by a virtual memory address and wherein

4   said converting includes changing the virtual memory address of the boundary.

1   41. (cancelled)